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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

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Complete If Known

Application Number	10/791,177
Filing Date	March 2, 2004
First Named Inventor	Wang
Art Unit	1714
Examiner Name	

Attorney Docket Number P02083US1A

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
PLH	US-	3,972,963	8/3/1976	Schwab et al.	
	US-	4,233,409	11/11/1980	Bulkley	
	US-	4,247,434	1/27/1981	Vanderhoff et al.	
	US-	4,463,129	7/31/1984	Shinada et al.	
	US-	4,543,403	9/24/1985	Isayama et al.	
	US-	4,659,780	4/21/1987	Shimozato et al.	
	US-	4,788,254	11/29/1988	Kawakubo et al.	
	US-	4,829,130	5/9/1989	Licchelli et al.	
	US-	4,837,274	6/6/1989	Kawakubo et al.	
	US-	4,837,401	6/6/1989	Hirose et al.	
	US-	4,870,144	9/26/1989	Noda et al.	
	US-	4,904,730	2/27/1990	Moore et al.	
	US-	4,904,732	2/27/1990	Iwahara et al.	
	US-	4,906,695	3/6/1990	Blizzard et al.	
	US-	5,075,377	12/24/1991	Kawakubo et al.	
	US-	5,120,379	6/9/1992	Noda et al.	
	US-	5,514,753	5/7/1996	Ozawa et al.	
	US-	5,169,914	12/8/1992	Kaszas et al.	
PLH	US-	5,219,945	6/15/1993	Dicker et al.	

FOREIGN PATENT DOCUMENTS

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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
PLH		WO 01/87999A2	11/22/2000	Faust et al.		
		WO 02/100936	12/19/2002	Exxon Chem.		
		WO 02/31002A1	4/18/2002	UAB Res. Found.		
PLH		WO 91/04992	4/18/1991	Exxon Chem.		

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DM	US-	5,237,015	8/17/1993	Urban	
	US-	5,247,021	9/21/1993	Fujisawa et al.	
	US-	5,262,502	11/16/1993	Fujisawa et al.	
	US-	5,290,873	3/1/1994	Noda et al.	
	US-	5,331,035	7/19/1994	Hall	
	US-	5,336,712	8/9/1994	Austgen, Jr. et al.	
	US-	5,421,866	6/6/1995	Stark-Kasley et al.	
	US-	5,447,990	9/5/1995	Noda et al.	
	US-	5,487,054	12/8/1995	McKee et al.	
	US-	5,525,639	6/11/1996	Keneko et al.	
	US-	5,527,870	6/18/1996	Maeda et al.	
	US-	5,580,925	12/3/1996	Iwahara et al.	
	US-	5,614,579	3/25/1997	Roggeman et al.	
	US-	5,627,252	5/6/1997	De La Croi Habimana	
	US-	5,688,856	11/18/1997	Austgen, Jr. et al.	
	US-	5,728,791	3/17/1998	Tamai et al.	
	US-	5,733,975	3/31/1998	Aoyama et al.	
DM	US-	5,739,287	4/14/1998	Fujisawa et al.	
	US-	5,777,037	7/7/1998	Yamanaka et al.	

FOREIGN PATENT DOCUMENTS

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DM		WO2004/058874	7/15/2004	Bridgestone Corp.		
		EP 0 265 142 A2	4/27/1988	Rohm and Haas		
		EP 0 590 491 A2	4/6/1994	Bridgestone		
DM		EP 1 099 728 A1	5/16/2001	Chiba et al.		

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MM	US- 5,811,501		9/22/1998	Chiba et al.	
	US- 5,834,563		11/10/1998	Kimura et al.	
	US- 5,849,847		12/15/1998	Quirk	
	US- 5,855,972		1/5/1999	Kaeding	
	US- 5,883,173		3/16/1999	Eispass et al.	
	US- 6,011,116		1/4/2000	Aoyama et al.	
	US- 6,020,446		2/1/2000	Okamoto et al.	
	US- 6,025,416		2/15/2000	Proebster et al.	
	US- 6,025,445		2/15/2000	Chiba et al.	
	US- 6,060,559		5/9/2000	Feng et al.	
	US- 6,087,016		7/11/2000	Feehey et al.	
	US- 6,087,456		7/11/2000	Sakaguchi et al.	
	US- 6,108,853		8/22/2000	Zimmermann et al.	
	US- 6,117,932		9/12/2000	Hasegawa et al.	
	US- 6,121,379		9/19/2000	Yamanaka et al.	
	US- 6,147,151		11/14/2000	Fukumoto et al.	
	US- 6,268,451		7/31/2001	Faust et al.	
	US- 6,277,304		8/21/2001	Wei et al.	
MM	US- 6,348,546		2/19/2002	Hiro et al.	

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MM	EP 1 134 251 A1		9/19/2001	Okamoto et al.		
MM	JP 08-199062		8/6/1996	Mitsubishi Chem.		

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MJ	US-	6,573,330	6/3/2003	Fujikake et al.	
	US-	6,598,645	7/29/2003	Larson	
	US-	6,649,702	11/18/2003	Rapoport et al.	
	US-	6,750,297	8/15/2004	Yeu et al.	
	US-	6,759,464	7/6/2004	Ajbani et al.	
	US-	6,835,781	12/28/2004	Kondou et al.	
	US-	6,872,785	3/29/2005	Wang et al.	
	US-	6,875,818	4/5/2005	Wang	
	US-	2002/0095008	7/18/2002	Heimrich et al.	
	US-	2002/0144401	10/10/2002	Nogueroles Vines et al.	
	US-	2003/0004250	1/2/2003	Ajbani et al.	
	US-	2003/0032710	2/13/2003	Larson	
	US-	2004/0059057	3/25/2004	Swisher et al.	
	US-	2004/0127603	7/1/2004	Lean et al.	
	US-	2004/0143064	7/22/2004	Wang	
	US-	2004/0198917	10/7/2004	Castner	
	US-	2005/0101743	5/12/2005	Stacy et al.	
	US-	2005/0203248	9/15/2005	Zheng et al.	
MH	US-	6,706,813	3/16/2004	Chiba et al.	

FOREIGN PATENT DOCUMENTS

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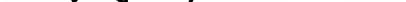
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NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
<i>MH</i>		Star Polymers by Immobilizing Functional Block Copolymers, by Koji Ishizu, Tokyo Institute of Technology, Meguro-ku, Tokyo, Japan, Star and Hyperbranched Polymers, 1999, ISBN 0-8247-1986-7		T ²
<i>J</i>		Formation of Worm-like Micelles from a Polystyrene-Polybutadiene-Polystyrene Block Copolymer in Ethyl Acetate, Canham et al., J.C.S. Faraday I, 1980, 76, 1857-1867		
		Anomalous Behaviour of Solutions of Styrene-Butadiene Block Copolymers in Some Solvents, Tuzar et al., Makromol. Chem. 178, 22743-2746 (1977)		
		Association of Block Copolymers in Selective Solvents, 1 Measurements on Hydrogenated Poly(styrene-isoprene) in Decane and in trans-Decalin, Mandema et al., Makromol. Chem. 180, 1521-1538 (1979)		
		Light-Scattering Studies of a Polystyrene-Poly(methyl methacrylate) Two-Block Copolymer in Mixed Solvents, Utiyama et al. Macromolecules Vol. 7, No. 4, July-August, 1974		
		Greenwood, N.N.; Eamshaw, A., Chemistry of the Elements, pp 1126-1127, Pergamon Press, New York 1984		
		Functionalized Core-Shell Polymers Prepared by Microemulsion Polymerization, E. Mendizabal et al., Dept. of Ingenieria Quimica, Univ. De Guadalajara, MX, 477/ANTE 97/1733-1737		
		Kink-Block and Gauche-Block Structures of Bimolecular Films, Gehard Lagaly, Chem. Int. Ed. Engl. Vol. 15 (1976) No. 10, pp 575-586		
		Linear Viscoelasticity of Disordered Polystyrene-Polyisoprene...Layered-Silicate Nanocomposites, J. Ren, Dept. of Chem Eng. Univ. of Houston, Macromol. 2000, pp 3739-3746		
<i>MH</i>		Rheology of End-Tethered Polymer Layered Silicate Nanocomposites, R. Krishnamoorti et al., Macromol. 1997, 30, 4097-4102		

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<i>MH</i>		Rheology of Nanocomposites Based on Layered Silicates and Polyamide-12, B. Hoffman et al., Colloid Polm. Sci. 278:629-636 (2000)	
<i>/</i>		Quaternary Ammonium Compounds, Encyclopedia of Chem Tech., 4th Ed. Vol. 20, 1996, Wiley & Sons, pp. 739-767	
		R.P. Quirk and S.C. Galvan, Macromolecules, 34, 1192-1197 (2001)	
		M. Moller, J.P. Spaz, A. Roescher, S. Mobmer, S.T. Selvan, H.A. Klok, Macromol. Symp. 117, 207-218 (1997)	
		T. Cosgrove, J.S. Phipps, R.M. Richardson, Macromolecules, 26, 4363-4367 (1993)	
		S. Mossmer, J.P. Spatz, M. Moller, T. Aberle, J. Schmidt, W. Burchard, Macromol. 33, 4791-4798 (2000)	
		Functionalized Core Shell Polymers Prepared by Microemulsion Polymerization, E. Mendizabal, J.E. Pugl, A. Aguiar, S. Gonzalez-Villegas, 477/Antec '97/1733-1737	
		Ultrahydrophobic and Ultrayophobic Surfaces: Some Comments and Examples, Wei Chen et al., The ACS Journal of Surfaces and Colloids, May 11, 1999, Vol. 15, No. 10, pp 3395-3399, Polymer Science and Engineering Dept., Univ. of MA, Amherst, MA 01003	
		Super-Repellent Composite Fluoropolymer Surfaces, S.R. Coulson, I. Woodward, J.P.S. Badyal, The Journal of Physical Chemistry B, Vol. 104, No. 37, Sept. 21, 2000, pp. 8836-8840, Dept. of Chemistry, Science Laboratories, Durham University, Durham, DH1 3LE, England, U.K.	
<i>MH</i>		Transformation of a Simple Plastic into a Superhydrophobic Surface, H. Yildirim Erbil et al., Science Vol. 299, Feb. 28, 2003, pp. 1377-1380	

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OCT 2 SEP 8 2005

PTO/SB/08A (07-05)

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Patent & Trademark
Information Disclosure Statement for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1

of 12

Complete If Known

Application Number	10/791,177
Filing Date	March 2, 2004
First Named Inventor	Wang
Art Unit	1714
Examiner Name	
Attorney Docket Number	P02083US1A

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² <i>(if known)</i>			
CHY		US- 4,764,572	8/16/1988	Bean, Jr.	
		US- 4,871,814	10/3/1989	Gunesin et al.	
		US- 4,920,160	4/24/1990	Chip et al.	
		US- 5,036,138	7/30/1991	Stamhuis et al.	
		US- 5,130,377	7/14/1992	Trepka et al.	
		US- 5,227,419	7/13/1993	Moczygemba et al.	
		US- 5,241,008	7/31/1993	Hall	
		US- 5,256,736	10/26/1993	Trepka et al.	
		US- 5,290,875	3/1/1994	Moczygemba et al.	
		US- 5,290,878	3/1/1994	Yamamoto et al.	
		US- 5,395,902	3/7/1995	Hall	
		US- 5,399,628	3/21/1995	Moczygemba et al.	
		US- 5,405,903	4/11/1995	Van Westrenen et al.	
		US- 5,436,298	7/25/1995	Moczygemba et al.	
		US- 5,438,103	8/1/1995	DePorter et al.	
		US- 5,462,994	10/31/1995	Lo et al.	
		US- 5,587,423	12/24/1996	Brandstetter et al.	
		US- 5,773,521	7/30/1998	Hoxmeier et al.	
CHY		US- 5,955,537	9/21/1999	Steininger et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁴
		Country Code ³ -Number ⁴ -Kind Code ⁵ <i>(if known)</i>				

Examiner Signature

Date Considered

8/1/2002

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Information Disclosure Statement by Applicant

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2

of 12

Complete If Known

Application Number	10/791,177
Filing Date	March 2, 2004
First Named Inventor	Wang
Art Unit	1714
Examiner Name	

Attorney Docket Number P02083US1A

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
PLH		US- 5,986,010	11/1/1999		
		US- 6,180,693	1/30/2001		
		US- 6,359,075	3/19/2002		
		US- 6,420,486	7/16/2002		
		US- 6,489,378	12/3/2002		
		US- 6,689,469	2/10/2004		
		US- 2003/0124353	7/3/2003		
		US- 2003/0149185	8/7/2003		
		US- 2003/0198810	10/23/2003		
MJ		US- 2003/0225190	12/4/2003		
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
PLH		Country Code ² "Number ⁴ "Kind Code ⁵ (if known)				
		EP 143500	6/5/1985	Damen		
		EP 265142	4/27/1988	Berzinis et al.		
		JP 01279943	1/10/1989	Tsubokura et al.		
		JP 05132605	5/28/1993	Hayashi et al.		

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Date Considered

4/13/2007

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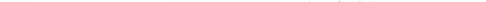
(Use as many sheets as necessary)

Sheet 1 of 1

<i>Complete if Known</i>	
Application Number	10/791,177
Date	March 2, 2004
Named Inventor	Wang
Item	1714
Other Name	
Key Docket Number	P02083US1A

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	4/30/07
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

1

of 2

Complete if Known

Application Number	10/791,177
Filing Date	March 2, 2004
First Named Inventor	Xiaorong Wang
Art Unit	
Examiner Name	

Attorney Docket Number P02083US1A

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/M/		US- 4,773,521	09-27-1988	Chen	
		US- 4,829,135	05-09-1989	Gunesin et al.	
		US- 4,942,209	07-17-1990	Gunesin	
		US- 5,594,072	01-14-1997	Handlin Jr, et al.	
		US- 5,763,551	06-09-1998	Wunsch et al.	
		US- 5,847,054	12-08-1998	McKee et al.	
		US- 5,891,947	04-06-1999	Hall et al.	
		US- 5,905,116	05-18-1999	Wang et al.	
		US- 5,994,468	11-30-1999	Wang et al.	
		US- 6,191,217	02-20-2001	Wang et al.	
		US- 6,204,354	03-20-2001	Wang et al.	
		US- 6,255,372	07-03-2001	Lin et al.	
		US- 6,437,050	08-20-2002	Krom et al.	
/M/		US- 2002/0045714 A1	04-18-2002	Tomalia et al.	
		US- 2003/0130401 A1	07-10-2003	Lin et al.	
		US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ "Number ⁴ " Kind Code ³ (if known)				
/M/		WO 02/081233 A1	10-17-2002	Bridgestone		
/M/		WO 03/085040 A2	10-16-2003	Bridgestone		

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Date Considered

4/30/07

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet

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of

2

Application Number	10/791,177
Filing Date	March 2, 2004
First Named Inventor	Xiaorong Wang
Art Unit	
Examiner Name	
Attorney Docket Number	

P02083US1A

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
M		An article entitled "Dendritic Macromolecules: Synthesis of Starburst Dendrimers" DONALD A. TOMALIA et al. <i>Macromolecules</i> , Vol. 19, No. 9, 1986, contribution from Functional Polymers/Processes and the Analytical Laboratory, Dow Chemical, Midland, MI 48640, Pgs. 2466-2468.	
		An article entitled "Preparation and Characterization of Heterophase Blends of Polycaprolactam and Hydrogenated Polydienes" DAVID F. LAWSON, ET AL. Pgs. 2384-2351, Central Research Labs., The Firestone Tire and Rubber Co..	
M		Akron, Ohio 44317, <i>Journal of Applied Polymer Science</i> , Vol. 39, 1990 John Wiley & Sons, Inc.	

Examiner Signature

Date Considered

4/30/07

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1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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FORM PTO-1449 (Modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE								Atty Docket No.: P02083US1A				
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)												
(37 CFR 1.98(b))								Serial No.: 10/791,177				
								Applicant(s): Wang et al.				
								Filed: March 2, 2004				
								Group: 1714				
U.S. PATENT DOCUMENTS												
Exam. Init. ✓		Publication/ Patent Number						Publication/ Issue Date	Patentee	Class	Subclass	Filing Date
PA		4	3	2	6	0	0	8	04/20/1982	Rembaum		
		4	3	8	6	1	2	5	05/31/1983	Shiraki et al.		
		4	7	1	7	6	5	5	01/05/1988	Fluwylar		
		4	7	7	4	1	8	9	09/27/1988	Schwartz		
		4	8	6	1	1	3	1	08/29/1989	Bois et al.		
		5	0	6	6	7	2	9	11/19/1991	Slayer, Jr. et al.		
		5	0	7	3	4	9	8	12/17/1991	Schwartz et al.		
		5	1	9	4	3	0	0	03/16/1993	Cheung		
		5	5	1	4	7	3	4	04/07/1996	Maxfield et al.		
		5	5	2	1	3	0	9	05/28/1996	Antkowiak et al.		
		5	7	0	7	4	3	9	01/13/1998	Takekoshi et al.		
		5	9	1	0	5	3	0	06/08/1999	Wang et al.		
		6	1	9	7	8	4	9	03/06/2001	Zilg et al.		
		6	2	2	5	3	9	4	05/01/2001	Lan et al.		
		6	3	9	5	8	2	9	05/28/2002	Miyamoto et al.		
		6	4	4	1	0	9	0	08/27/2002	Demirors et al.		
		6	6	9	3	7	4	6	02/17/2004	Nakamura et al.		
		6	8	5	8	6	6	5	02/22/2005	Larson		
		6	8	6	1	4	6	2	03/01/2005	Parker et al.		
		6	9	5	6	0	8	4	10/18/2005	Wang et al.		
		7	0	7	1	2	4	6	07/04/2006	Xie et al.		
		7	1	1	2	3	6	9	09/26/2006	Wang et al.		
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION												
Exam. Init. ✓		Document Number						Publication Date	Country or Patent Office	Class	Subclass	Translation Yes No
PA		0	3	2	2	9	0	5	07/05/1989	Europe		
		0	3	5	2	0	4	2	01/24/1990	Europe		
		0	4	7	2	3	4	4	02/26/1992	Europe		
		0	7	4	2	2	6	8	11/13/1996	Europe		
		3	4	3	4	9	8	3	04/03/1986	Germany		
		4	2	4	1	5	3	8	06/16/1994	Germany		
		0	6	2	4	8	0	1	09/06/1994	Japan		
2003-		0	0	9	5	6	4	0	04/03/2003	Japan		
		9	7	0	4	0	2	9	02/06/1997	PCT		
PA		0	3	3	2	0	6	1	04/17/2003	PCT		

for
4/30/07